

Water Pollution Control Authority
July 27, 2011
Regular Meeting
Town Hall – Room 207

Members Present: Mr. Walter Gancarz
Mr. Tim Pelton (Chairman)
Mr. John Perrotti
Mr. Thomas Scannell
Mr. Mark Witek

Members Absent: Mr. Steve Eberle
Mr. Mark Korman

Others Present: Mr. Dennis Dievert, Superintendent, WPCD
Mr. Donald Chelton, AECOM
Town Attorney Andrew Lord

Chairman Pelton called the meeting to order at 7:30 p.m. Roll was called and a quorum determined. The assembled group recited the Pledge of Allegiance. Mr. Pelton explained to the audience how to exit the chamber in the event of an emergency, in compliance with the Fire Marshal's order.

PUBLIC COMMUNICATIONS

There were no communications to come before the Authority.

APPLICATIONS

There were no applications submitted for consideration at this meeting.

REPORTS FROM CHAIRMAN/STAFF

Mixville Pump Station

This project is in the warranty period.

WPCD Influent Pump Station—Project Progress Schedule

Mr. Chelton stated that this project is in the warranty period

Mr. Gancarz moved that the Water Pollution Control Authority approve AECOM Invoice #3714428 dated 7/19/2011 in the amount of \$1,493.95 for work relating to the WPCD Influent Pump Station Project. The motion was seconded by Mr. Scannell and carried unanimously.

WPCD Plant Upgrade Design—Project Update

Mr. Chelton began discussion about value engineering workshop and distributed document # 1 memo relating to the suggestions in the VE report on Phosphorus

removal. He outlined several items that were recommended. Don recommended WPCA members have a special workshop to go over report and make decisions prior to the council meeting. It was requested that Mr. Chelton email an executive summary to WPCA members so they could review it before the workshop.

Discussion continued on the need for disc filters to achieve phosphorus limits.

Mr. Chelton went over the high points on the report in regard to the need for disc filters for phosphorus and other chemical removal.

Limit 0.2 mg/liter based on flow 2.4 mgd equates to certain pounds and have to be held during lifetime of permit. As flows go up, pounds stay the same so concentration has to go down. At 3 million gal per day, the concentration is .18 mg/liter and with the projected future flow of 4 million gal per day, concentration will be .12 mg/liter.

The second section in the report is about technology for removal of phosphorus by filtration. VE report stated that in plant final effluent about 2-3% of what comes through is particulate phosphorus not soluble phosphorus. The recommendation was based on looking at similar plant in Arlington, VA. Mr. Chelton referred to the comparison of the two plants on 3rd page of the report. Two key points: difference in filters – Cheshire's 4.5 mm, theirs is 2-3mm – a finer media that will capture more salts. Our hydraulic loading is a high rate filter at 9 gallons per min per square foot, theirs 1-3 gallons per min per square foot. They're plant loading is finer material at a much lower rate.

Discussion followed about Kruger and Aqua Aerobics filters and what they can handle.

Discussion about nitrogen limit difference from phosphorus limit. Nitrogen limit is an annual average designed as a peak flow of 7.75mgd. Peak flow at plant is going up to 11 million gal/day as a result of the new design – we are upgrading all the components to get to that level for phosphorus but not upgrading nitrogen filter. There are few periods when the flow is up that high so it doesn't really affect the annual average. Phosphorus is different in that it has a monthly average and daily max.

Mr. Chelton said it is AECOM's recommendation to use the filter as a solution for phosphorus limits. They do not think it will work with just chemical addition.

Discussion about doing a full pilot test with a chemical addition system and test it to see what happens. It would be expensive to install since there needs to be the right blend of phosphorus in the existing biological filter to work and there needs to be good control on chemical dosing. It would have to be piloted at different times of year- most challenging times are when water is coldest (April) because it can affect reactions for denitrification. Doing a pilot would delay things for a long period of time.

The other option is go with upgrade of plant, and build a full-scale pilot system, put in the chemical addition that's always been planned and run for a couple of years and see what happens. If it doesn't work, then all you've done is delayed implementation of the disc filter. If permit gets issued you have finite time to plan for permit (4 yrs). So if

doesn't work, you'd be hard-pressed to go out design a filter, and get it installed in that 4 year period.

Don continued that they don't think the filter that they use is comparable to what is out there and at best marginal and they question if they can meet limit.

Mr. Pelton reiterated– if nothing changes with flows today, we might be able to do chemical dosing and achieve goals. Building plant with 20 yr. vision where the peak flows will go up and the qualification for successful compliance with phosphorus is different from nitrogen, more strict. All things considered, a mechanical disc filter was original recommendation.

Mr. Pelton asked the “mission critical question”. Do we have to do it now or, can we build it later? Do we save money now, but have to go back and ask for more later?

Mr. Chelton answered that it would be difficult to build a footprint because of the different physical make up of Kruger and Aqua Aerobics Disc Filters. We don't know in 3-4 years from now who else is going to be in the marketplace so to build one generic footprint that's going to meet everybody's particular filter just can't be done. Phasing the work is a possibility but the drawbacks are that it may jeopardize funding from DEP. It would require going back to the voters and getting another appropriation approved. To build it as separate unit, by itself, would be more costly than if incorporated in a larger project.

Mr. Pelton asked: can you build in a way that it has the flexibility to grow 15 yrs from now, can it be done? Mr. Chelton's answer was yes, the current design has plenty of room for connections and extensions.

Discussion followed about possible expansion and do we build smaller and expand or build big now and grow into it? It was determined to build it now because costs are only going to go up.

Mr. Witek questioned the pilot program and could we get DEP to buy into it? Mr. Chelton cautioned about beginning a pilot program that could be costly to do.

Mr. Dievert stated that he was concerned by the addition of chemicals and said he spoke to several process operators and general consensus is without the disc filters you are operating by the seat of your pants. You are running without any backup to the BAF Filter. You risk the chance of doing something to the biology in the denitrification filter and, as an operator, he doesn't feel comfortable achieving the numbers that the DEP is asking for with just chemicals. He's willing to do a pilot study and see, but since the load on filter changes so much depending on rain, he has no idea how well chemical phosphorus addition will compensate. Probably not like the denitrification filter compensates and doesn't think the town should to take chance. The feeling is that we have to prove to DEP that we can achieve those numbers and doesn't think it's possible with chemical addition.

Mr. Perrotti discussed doing an excel spreadsheet on the 20 items in report with statement of savings and AECOM's position of good idea/bad idea. Mr. Chelton said

some are simple, but some are more complex. Discussion followed about items on report and how to do analysis.

Mr. Gancarz thanked them (Mr. Chelton and AECOM) for information and appreciated their opinion and thoughts.

Mr. Chelton stated that when they calculated the cost savings they didn't include that the denitrification filter would need to be expanded.

Tim Pelton brought up the following idea: On August 16 there needs to be a solid number to go to referendum. We have the Value Engineering Report to do some analysis, look at pros and cons, etc. between now and August 16. It was suggested to take a night, have a workshop about Value Engineering Report, discuss the 20 items, and come up with projected savings number, if there is one. Mr. Perrotti agreed that items need to be looked at more closely. Mr. Dievert said he worked with Susan Landon, VE Process Expert, and she said "technology is just starting to develop solutions to meeting phosphorus limits that are continually evolving vendors will commit to meeting levels of 0.17 but reaching lower limits is shaky. Short term phosphorus removal requirements are worth considering while the regulations and technologies evolve." What she's saying is disc filters aren't out of the question, just that right now, while the state is trying to decide what the phosphorus limits are going to be, to just try adding chemicals to try to achieve where you want to be. What Mr. Dievert sees is that using chemicals is just putting off the inevitable because concentrations are going to just keep going down. Mr. Gancarz said that he agrees and that the workshop is a good idea.

Mr. Pelton reiterated that he would like to do a workshop and go over each item one by one. He knows some will be agreed upon immediately and others will require extensive discussion, but feels each need to be gone through with a fine-toothed comb.

After discussion of everyone's vacation schedules, time to go over items, etc. Mr. Pelton stated that it might not be possible to bring info to council on August 16th. Mr. Chelton thought he remembered Mr. Schrumm stating that they need the number by the 16th, and the number could go down afterwards, but it cannot go up. Members discussed using the number they already have and discussed the fact that some "green" options included spending more money, so they'd need to offset that with some less costly options.

Mr. Pelton referred to his report from July 19. The number he gave to council is around \$30 million dollars. Attorney Lord stated that he is no referendum expert, but to him, this seems similar to I&I where went in with a number for a specific purpose, didn't spend all of it, and now money is left over that can't be used for anything else. Mr. Chelton talked about money being appropriated but not spending all of it

Mr. Pelton feels that the WPCA should take time to do it right and do due diligence, but thinks the number is \$32.3 million, which is the number in front of them. Mr. Witek would like to see the number based on something, and the \$32.3 million is based on something. Discussion followed that numbers may actually come in lower.

The authority stated they are comfortable recommending \$32.3 million as the number for referendum in the fall, but agreed analysis of the Value Engineering Report still needs to be done.

Motion made by Mr. Pelton: WPCA is projecting that the total cost of the Wastewater Treatment Plant Upgrade is \$32.3 million and is requesting that that amount be sent to referendum this fall. Motion seconded by Mr. Witek. All were in favor and the motion carried unanimously

Discussion followed about having a workshop and it was agreed that it should be done out of necessity as there is a lot to work on. Data will be sent to members electronically.

WPCA discussed the amendment to the contract for pre-selection. There was an error in the spreadsheet. Recommended holding off on this for now

Mr. Witek moved that the Water Pollution Control Authority approve AECOM Invoice #37144430 dated 7/19/2011 in the amount of \$124,078.80 for work relating to the WPCD Plant Upgrade Design Project. The motion was seconded by Mr. Scannell and carried unanimously

I & I Program – Interceptor Manhole Rehabilitation

This program is in the warranty period.

SUPERINTENDENT'S REPORT

Projected Revenues

Mr. Dievert met with Joe Michelangelo and Bill Voelker. Mr. Dievert is working on a formula with Mr. Michelangelo. Instead of an application fee, it's going to be one cost based on amount of linear feet of sewer, but based on what P&Z uses. Mr. Witek said these types of items occasionally have to go to consultant which can run up cost and funding issues. If something requires review there has to be an additional way to recoup cost. Dennis will work on this concept

Sump Pump Project

Mr. Dievert stated that the Sump Pump Committee hasn't met. At the budget meeting on July 19, 2011 it was stated that Michael Milone is setting it up in the next home tax assessment that sump pumps will be inspected. Mr. Pelton said RFPs have gone out for the housing assessment program and as part of the assessment they will be checking basements for sump pump. The WPCA will then get accurate address info regarding who has sump pumps. Mr. Witek asked if there is the ability to be reported with GPS coordinates. Mr. Pelton said he could find out.

Mr. Dievert gave an update from the meeting held in Wallingford on July 1, 2011. There were 5 management people from Meriden, 3 from Wallingford, 3 from Southington, and Mr. Dievert from Cheshire. There were also three people from DEP: Robert Hust, Assistant Director, Mary Becker, Microbiologist and Rowland Denny, Senior Sanitary Engineer. It was discussed at length where DEP came up with concentrations they put upon above towns. It was done based on enrichment factor. The problem that these 4 towns have had was that flow data was from 2001 – 2007 and biological data was from 2004. Roger Dann, City Utilities Director in Wallingford asked if they were going to calibrate their model based on what's happening presently, not what happened in 2004. They're going to look into that. But no matter what the river basins in Connecticut say or what DEP does, the EPA is guiding it and right now the 0.1 that Meriden has, or 0.2 that Cheshire, Wallingford, and Southington have are not yet approved by EPA. EPA's number is 0.05 which is the minimum technology available. By 1st of year should have EPA's decision. A representative from Meriden told Mr. Dievert that they would like to have meeting just with towns. Mr. Chelton mentioned that AECOM did an upgrade at Meriden and in the middle of the job DEP told them that phosphorus limits were coming, so they built it into job. Meriden went ahead and upgraded to what DEP said (to 0.5) but wasn't low enough and they had to go to .01.

NEW BUSINESS

At the June meeting they talked about I&I money and how to use it. Mr. Chelton had nothing to report.

Value Engineering Report was previously addressed

Public Hearing Report was previously addressed

Capital budget hearing report- August 16 is the capital budget hearing with Council. It is a public hearing, where the public can come in and ask questions. Mr. Pelton requested a quorum attend this meeting in case they need to take action on something there.

OLD BUSINESS

Tax relief protocol

Town attorney is developing an ordinance. Discussion followed regarding elderly tax relief and that ordinance follows along that line.

Funding for sump pump

Fee structure work in progress.

Funding for plant upgrade

Michael Milone contacted DOC and DOC has been favorable to handle 20-25% of cost of upgrade Mr. Witek brought up point of additional prisoners being moved. Michael Milone is going to handle this. The DOC not opposed to helping with the cost, but they just need to work out how much.

Education

WPCA needs to educate public on the \$32.3 million plant upgrade plan. One idea is to set up booth at fall festival and have paperwork for residents to see. Mr. Witek suggested they team up with UI or someone and do it as part of group of other booths instead of standing out all by themselves. Mr. Pelton will check to see who's coming and see who they can share with. Mr. Chelton brought up concern about using public money for private project. Attorney Lord will investigate. Another idea brought up was about newspaper articles or open house at the plant so people can see how it all works. It was stated what really needs to be stressed is the age of things, how old they are, at the end of useful life, etc. Mr. Witek suggested using an intern; maybe put some information on Board of Education website...school project?

Approved agreement at West Johnson pump station

Mr. Gancarz asked to add language. Attorney Lord was comfortable with it. Originally it read " services described in section 2.3, 2.4, 2.5 and 2.6 an amendment to this agreement will be executed after the conceptual design phase that incorporates the amounts for the design and construction phases." The new wording is " services described in section 2.3, 2.4, 2.5 and 2.6, and if mutually agreeable, an amendment to this agreement may be executed." This was approved at last meeting.

Chesprocott

There were a couple of issues on old septic systems

Approval of minutes

There were misspellings of denitrification in several places. Motion by Mr. Witek to accept minutes of June meeting as amended and corrected – seconded by Mr. Scannell. All in favor – passed unanimously.

No other old business.

Motion by Mr. Witek to adjourn. Seconded by Mr. Scannell. Meeting adjourned at 9:00 pm.

Respectfully submitted,

Tim Pelton